

**MBNMS Research Activity Panel
Meeting Summary
November 4, 2016**

Host: Kerstin Wasson – Estuarine Environment (Elkhorn Slough NERR and Foundation)

Location: Elkhorn Slough National Estuarine Research Reserve
1700 Elkhorn Road
Watsonville, CA 95076

Date: Friday, November 4th, 2016; 9:00 am to 12:00 pm

Members:

	Discipline	Primary/ Alternate	Name	Institution
X	Research Coordinator		DeVogelaere, Andrew	Monterey Bay National Marine Sanctuary
	Biological Oceanography	primary	Kudela, Raphael	University of California, Santa Cruz
	Biological Oceanography	alternate	Chavez, Francisco	Monterey Bay Aquarium Research Institute
	Deep-Sea Environment	primary	Cailliet, Greg	Moss Landing Marine Laboratories (retired)
X	Deep-Sea Environment	alternate	Haddock, Steve †	Monterey Bay Aquarium Research Institute
X	Estuarine Environment	primary	Lindley, Steve	NOAA Fisheries Service
X	Estuarine Environment	alternate	Wasson, Kerstin	Elkhorn Slough NERR and Foundation
	Fisheries	primary	Sogard, Susan	NOAA Fisheries Service
	Fisheries	alternate		
X	Marine & Coastal Geology	primary	Storlazzi, Curt	United States Geological Survey
	Marine & Coastal Geology	alternate	Paull, Charles	Monterey Bay Aquarium Research Institute
	Marine Conservation Biology	primary	Goldbogen, Jeremy	Hopkins Marine Station
	Marine Conservation Biology	alternate	Micheli, Fiorenza	Hopkins Marine Station
	Nearshore Environment	primary		
	Nearshore Environment	alternate	Carr, Mark	University of California, Santa Cruz
X	Physical Oceanography	primary	Ramp, Steve	Soliton Ocean Services, Inc.
X	Physical Oceanography	alternate	Cheriton, Olivia	United States Geological Survey
X	Shelf & Slope Environment	primary	Lindholm, James	California State University Monterey Bay
	Shelf & Slope Environment	alternate		
X	Social Sciences	primary	Pomeroy, Caroline	California Sea Grant Extension Program
	Social Sciences	alternate	Scorse, Jason	Middlebury Institute of International Studies
X	Water Quality	primary	Hunt, John *	University of California, Davis
X	Water Quality	alternate	Hoover, Bridget	Monterey Bay National Marine Sanctuary

*Sanctuary Advisory Council Member: Research (Primary)

†Sanctuary Advisory Council Member: Research (Alternate)

RAP Coordinator:

Burton, Erica	Monterey Bay National Marine Sanctuary
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GUESTS:

Lonhart, Steve	Monterey Bay National Marine Sanctuary
McGinnis, Christina	Sanctuary Advisory Council (At-large)
Owens, Brian	California Department Fish & Wildlife

CONSENT ITEMS

Introductions/Modifications to the Agenda (John Hunt)

HOST PRESENTATION AND DISCUSSION

Salt Marshes, Blue Carbon, and Resilience to Sea Level Rise (Kerstin Wasson)

- Wasson provided brief overview of science program
 - Long-term monitoring (primarily water-quality)
 - Goal: to inform management
 - Restoration Experiments (e.g., native oysters)
- Wasson primarily spoke on Salt Marsh Resilience
- Other NERRS also studying the topic
 - Q: How will tidal marshes survive sea level rise (SLR)?
 - Tidal marshes valuable
 - Threats from sea level rise
 - Goals: 1) develop and test first multi-metric indices of marsh resilience; 2) Conduct first national assessment of marsh resilience to SLR
 - Measuring indicators of sea level rise (to calculate Resilience Index)
 - Marsh elevation
 - Elevation change
 - Sediment/accretion
 - Tidal range
 - Sea-level rise
 - Regional patterns
 - New Hampshire got top score
 - Pacific coast marshes generally more resilient to SLR than Atlantic ones
 - Paper coming out in Biological Conservation this week (<http://www.sciencedirect.com/science/article/pii/S0006320716305742>)
- Other focal area (at ESNERR): decrease other stressors
 - Erosion at marsh edge
 - Facilitate migration of salt marshes
 - Marsh restoration with sediment addition
- Slough Symposium: January 24, 2017; 9:00-4:30 at MLML; flyer provided at meeting

RAP RESEARCH PRIORITIES

MBNMS Staff Involvement in Long-term Monitoring (Andrew DeVogelaere)

- DeVogelaere provided overview of MBNMS Research:
 - Team (4 staff plus one part-time contractor),
 - Budget (\$0),
 - MBNMS ship time (~5 days that research pays for),
 - Partners (SIMoN: ~85 institutions, 263 scientists)

- 2016/2017 Priorities
 - Management plan update
 - Immediate resources protection issues
 - Small boats program development
 - Ongoing research
 - Manuscripts
 - Other (episodic): NOAA ship and plane time; E/V *Nautilus* ship time (Ocean Exploration Trust); proposed seamount and ridge monument; proposed Chumash Heritage National Marine Sanctuary
- Ecosystem Assessment
 - SIMoN
 - IEA
 - MBON
 - CeNCOOS
 - Condition Reports
- Andrew presented how priorities are set: respond to various leadership and advisors, public; and through funding (grants, mitigation funds, ONMS funds, donors, interns)
- Future presentation: MBNMS WQ monitoring (handout: WQ monitoring framework)
- Discussion: Memo to SAC; management plan; scientists as stake holders; research at other sites/regions;

RAP Action Plan for Long-term Monitoring (John Hunt)

- Hunt led discussion of draft memo to SAC
- Hunt reviewed end goal comment from Cheriton's comments (11/3/16)
- Discussion: Comments on draft memo, and what RAP should do?

SANCTUARY ADVISORY COUNCIL UPDATE

Summary of October 21st SAC Meeting at Cambria (John Hunt/Steve Haddock)

- Hunt provided highlights of SAC meeting
- Artificial reefs: diving group remains interested, and strongly favors
- ONMS: new director is John Armor
- NMS Foundation: new director is Kristen Sarri
- Desal: EIR/EIS for CalAm and Deepwater Desal will be released Dec/Jan
- Budget: expected to be flat for FY2017; FY2018 may be better
- Southern region update (Coastal Discovery Center): MBNMS Staff (Carolyn Skinder) provided presentation; number and productivity of partnerships impressive
- Public comments: in favor of, and opposed to, proposed Chumash Heritage National Marine Sanctuary
- Member announcements:
 - CSUMB Ocean Candidate Forum;
 - Citizen science a new dive specialty (certification)
 - Early domoic acid sampling for Dungeness crab showing only a small proportion of samples above thresholds
 - Surfrider is bringing inland corporate groups to beach cleanups.

- The Western Association of Marine Laboratories (WAML) ocean observing network is including CO2 measurement.
- World Heritage site nomination: draft SAC letter of support not agreed upon, defeated
- State Dungeness Crab Working Group: working on best practices guide to reduce whale entanglements
- Management Plan Review Citizen Science Workshop:
 - MBNMS staff (Lisa Emanuelson) provided presentation on MBNMS volunteer programs;
 - RAP is asked to send recommendations regarding the Citizen Science program to Lisa and staff by November 20;
 - Hunt has an email in to Lisa to clarify this request.
- Working Group and Subcommittee updates
 - CWG focused on marine debris and plastics
 - SEP will try to resurrect Fishermen in Classroom program
 - Hunt provided RAP update
- Side note: Tucker Hirsch (SAC: Education) interested in resurrecting Currents Symposium
- For full SAC meeting minutes, see: <http://montereybay.noaa.gov/sac/sacma.html>

QUICK UPDATES ON NEW HIRES AT INSTITUTIONS, AND FACILITY UPDATES

- Lindholm: new College of Science Dean (Andrew Lawson); new replacement for Marc Los Huertos
- Ramp: moving out of area in spring (>Feb 28; Woods Hole area); will need to recruit for open RAP seat (Physical Oceanography, primary)
- Storlazzi: moved core-logging facilities to MBARI; almost done with geo-chem lab build-out; closed on center director opening, interviews done soon, maybe know January;
- Pomeroy: Rick Starr retired from Sea Grant; new extension director is Lisa Shiavinato; several position opening coming soon
- Brian Owens (CDFW; potential new RAP member): stepping down from permitting; starting new position as CEQA director
- Haddock: reminder: hired Kelly Benoit-Bird (active acoustics); new hires Andrea Fassbender and Yuichiro Takeshita
- Lindley: 3 admin, 3 scientists openings to be filled

Questions

- Membership: recruitment and reassignments
 - Two new members under consideration;
 - Brian Owens (CDFW) for Fisheries (alternate)
 - Ross Clark (Central Coast Wetlands Group) for Estuarine Environment (primary);
 - Churchill Grimes (Fisheries, alternate) stepped down from RAP
 - Steve Lindley will be moved from Estuarine Environment (primary) to Fisheries (primary)
 - Susan Sogard will be asked to move from Fisheries (primary) to Shelf & Slope Environment (alternate)

- Steve Ramp stepping down from RAP after January 2017; Physical Oceanography (primary) seat will be open

SUGGESTED FUTURE AGENDA ITEMS

- Storlazzi: budget and staffing and trends (short topic)
- Hunt: perhaps if RAP member/scientists could calculate what they contribute to MBNMS
- *To conserve paper, Haddock suggested no paper agendas be provided at meetings (agendas are provided electronically); Burton will no longer provide printed agendas, and will remind RAP members prior to January 2017 meeting*

Future Agenda Items (running list):

- Water Quality:
 - Follow-up to Hunt’s WQ presentation (9/12/14), where does all the data go? Successful uses, shared capability, proper use of data (per Scorse); Roy Mendelson would be good speaker (per Lindley)
 - Elkhorn Slough Report Card:
http://www.elkhornslough.org/research/waterquality_reportcard.htm
- RAP Membership:
 - Revisit RAP member policies including representation: discipline vs institution; available at: http://montereybay.noaa.gov/sac/rap/history/rap_policies.html
- SAC Charter revision
- Speaker series on science (Oceans Live; *Your Sanctuary* TV)
- Coastal Rivermouth Lagoon inventory for state and central coast (Central Coast Wetlands Group/Ross Clark)
- RAP feedback for SAC (per Hunt)
- Recent boom in whale watching; more info needed on fish/whale correlation; prey/fishing/whale interactions; science; Speaker: Peggy Stapp or Scott Benson? (per Scorse)
- Seal bombs deployed off CA; Ask Scott Kathey (per Scorse)
- Monitoring activities that ~~staff~~ and RAP members involved in (DeVogelaere/Hunt)
- If SAC to support World Heritage nomination, need RAP input? (Haddock)

2017 RAP Meeting Schedule and Locations

Date	Host	Location
January 13	Micheli	Hopkins Marine Station
March 10	Cheriton	US Geological Survey
May 12	Wasson	Elkhorn Slough NERR
July 14	Haddock	Monterey Bay Aquarium Research Institute
September 8	Owens	California Department of Fish and Wildlife
November 3	Pomeroy	UCSC or central location
